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Via Electronic Mail

January 11, 2017

Joseph A. Gowers
Remedial Project Manager
Emergency and Remedial Response Division
USEPA Region II
290 Broadway, 19th Floor
New York, New York 10007-1866

Re: Ringwood Mines/Landfill Superfund Site
December 19, 2016 Letter to Walter Mugdan

Dear Mr. Gowers:

On behalf of Ford Motor Company (Ford), this letter provides our thoughts regarding the comments made by representatives of Ringwood C.A.R.E.S, Edison Wetlands Association, and the New Jersey Sierra Club, in their letter of December 19, 2016 to the US Environmental Protection Agency (USEPA).

Regarding the premise in the December 19, 2016 letter that the Operable Unit No. 2 (OU-2) area, and in particular the O'Connor Disposal Area (OCDA), are "seismically unstable", we offer the following for the USEPA's consideration:

- Gartenberg Associates prepared a geophysical report for the Borough of Ringwood in response to a New Jersey Department of Environmental Protection (NJDEP) directive to conduct geophysical studies in the Upper Ringwood Residential Area. The Gartenberg report indicates that, with the exception of a few locations outside of the OU-2 footprint, "there is little risk of subsidence or collapse attributable to former mine activities...." The locations where potential evidence of near surface abandoned mining activities (i.e., potentially prone to subsidence) were noted are:
 - 23 Van Dunk Lane
 - 27 Van Dunk Lane
 - 177 Peters Mine Road
 - 8 Sheehan Drive
 - North end of Peters Mine Road

Gartenberg Associates was not granted access to further characterize potential mine anomalies in the 177 Peters Mine Road and 8 Sheehan Drive privately

owned properties, however, all of the aforementioned areas, including these private properties, are beyond (or outside) the limits of work for the OU-2 remediation.

- The December 19, 2016 letter indicates that subsidence has occurred, even recently, on Van Dunk Lane. The subsidence along Van Dunk Lane coincides with the investigations, findings, and recommendations of Gartenberg Associates, and is not associated with the OU-2 remediation areas. The December 19 letter, therefore, inaccurately links the circumstances farther east on Van Dunk Lane with the OU-2 remediation areas.
- The December 19, 2016 letter states that the “USEPA’s own well driller experienced an unexplainable event during the installation of wells in April 2016...” and that the “well rig unexpectedly dropped....” Later in the text, the letter states that the “...groups and community at large are still waiting for a realistic explanation for the well drilling failure that occurred on March 18, 2016.” We presume these references are to the drilling by Cornerstone on behalf of Ford at the OCDA bedrock monitoring well RW-16 location. This work was conducted by Cornerstone with onsite supervision and the fact is that there was not a “well drilling failure” at all. During drilling at the RW-16 location, a fracture in the bedrock was encountered at a depth of approximately 59 feet below grade. When this fracture was encountered, the drill rig rods (and only the drill rig rods) dropped approximately 12 inches. Based on the former mining operations in the area, as a precautionary measure, a video camera was sent down the borehole to confirm that the reason for the rods dropping was a bedrock fracture. The video confirmed that only a bedrock fracture was encountered, and there was no evidence of any mine workings. The well was then set within this bedrock fracture and several rounds of sampling have since been conducted.
- The OU-2 remediation area, including the OCDA, PMP Area, and CMP Area, has been the subject of conventional construction activity over decades, similar to what will be performed during the remediation. Each former landfill area was filled using conventional earthwork equipment, the material has been in place for decades, test pits and test trenches have been excavated and backfilled, and monitoring wells have been installed by drill rig without access or subsidence issues. Grading has occurred for various reasons, trucks have come in and out of the land AC areas and the sites are all well vegetated (e.g., there is an abundance of large growth trees). All of this collectively indicates stability under conventional heavy equipment loading, similar to the equipment that will be used to implement the OU-2 remediation.

The December 19 letter then requests two specific actions, as follows:

- A demonstration project per USEPA's *Abandoned Mine Site Characterization and Cleanup Handbook*; and
- Preparation of a draft Health and Safety Plan.

Regarding the first item above, the December 19, 2016 letter provides a partial quotation from the referenced USEPA Handbook stating "The team should consider a demonstration project in cases where the EPA is proposing soil remediation." This quotation is not complete and appears to be taken out of context with respect to USEPA's recommendation regarding demonstration projects. As quoted in the December 19 letter, the words "in residential areas" are left off the end of the quotation from the Handbook. We believe USEPA's intent regarding this wording is a demonstration project may be helpful where soil remediation will take place on residential properties, not just in the vicinity of residential properties and not due to the potential presence of mine workings. More specifically, the Handbook states that "Residential cleanups are intrusive.", and residents "...worry about the dust, mud, noise, and mess that the construction will create. They fear that the end result will be a barren yard. Often a small scale demonstration can calm some of these fears."

Within the context of the request for a demonstration project, the December 19, 2016 letter also states that "significant compaction of the OCDA will be done as a part of the site preparation and capping..." "Significant compaction" is not defined in the letter, but implies something more than conventional earthwork techniques will be used which is not the case for this Site. As defined in the technical specifications provided in the Draft Final Remedial Design submitted to the USEPA on September 8, 2016, compaction requirements for final cover subsoil fill and unspecified fill and mine tailings include a minimum of three passes with conventional earthmoving equipment to an unyielding condition, and submittal of proposed equipment for the approval of the Owner's Representative. For structural fill, which will be placed in limited areas under the footprint of structures for the recycling center (such as retaining walls), the compaction requirement is 95 percent of maximum dry density per ASTM D1557; again, a conventional standard. There is nothing in the compaction requirements for fill placement that would cause concern over the stability of any of the three OU-2 remediation areas.

Regarding the draft Health and Safety Plan, consistent with CERCLA requirements, we anticipate that USEPA will require a Remedial Action Work Plan (RAWP) prior to implementing the remediation. A standard component of a RAWP is the Remedial Action Contractor's Health, Safety, and Contingency Plan that USEPA could provide to the public, including Ringwood residents and members of Ringwood C.A.R.E.S, Edison Wetlands Association, and the New Jersey Sierra Club, etc.

Finally, the closing paragraph of the December 19, 2016 letter recommends installation of a "...series of seismographs throughout the areas where known seismic activity has

occurred in the past.” The purpose of such seismographs is not explained in the letter, however, they would not serve a purpose related to the OU-2 remediation and the conventional earthmoving equipment that will be utilized as described above since such equipment would not generate any substantial seismic waves. Of note, Gartenberg Associates did not include the use of seismographs in its recommendations and, as previously stated, the locations where potential evidence of near surface abandoned mining activities (i.e., potentially prone to subsidence) are beyond the limits of work for the OU-2 remediation.

Please contact us if you have questions or comments on the contents of this letter, which we hope is useful, or if we can be of further assistance.

Sincerely,

CORNERSTONE ENGINEERING GROUP, LLC



Gary J. DiPippo, Professional Engineer.
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Enclosure

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